

Abstract

A large surface area electrode well-suited to electrochemical applications is produced by winding many turns of a metallic fiber tow on to a sheet metal rectangle. In the preferred embodiment, an anode that can be used to purify water by electrochemical production of hydroxyl free radical is made by winding titanium fiber tow on to a rectangular substrate made of titanium sheet, and applying a suitable multilayered electrocatalytic coating. Made of other metals, an electrode of this description can also serve as the cathode of an electrochemical cell, or as a battery plaque.